

Linear Equations (J)

Point-Slope Form ($y - y_1 = m(x - x_1)$)

Write the equation of each line in point-slope form then solve for y.

1. Slope: -3 Point: $(3,-9)$

2. Slope: $-\frac{3}{4}$ Point: $(-8,8)$

3. Slope: $-\frac{1}{9}$ Point: $(9,-6)$

4. Slope: 0 Point: $(-6,0)$

5. Slope: -5 Point: $(1,1)$

6. Slope: undefined Point: $(-2,-10)$

7. Slope: 0 Point: $(3,7)$

8. Slope: $\frac{1}{5}$ Point: $(5,4)$

9. Slope: $-\frac{13}{4}$ Point: $(-4,7)$

10. Slope: $\frac{1}{3}$ Point: $(-6,6)$

Linear Equations (J) Answers

Point-Slope Form ($y - y_1 = m(x - x_1)$)

Write the equation of each line in point-slope form then solve for y.

1. Slope: -3 Point: $(3,-9)$

$$y - (-9) = -3(x - 3)$$

$$y = -3x$$

2. Slope: $-\frac{3}{4}$ Point: $(-8,8)$

$$y - 8 = -\frac{3}{4}(x - (-8))$$

$$y = -\frac{3}{4}x + 2$$

3. Slope: $-\frac{1}{9}$ Point: $(9,-6)$

$$y - (-6) = -\frac{1}{9}(x - 9)$$

$$y = -\frac{1}{9}x - 5$$

4. Slope: 0 Point: $(-6,0)$

$$y - 0 = 0(x - (-6))$$

$$y = 0$$

5. Slope: -5 Point: $(1,1)$

$$y - 1 = -5(x - 1)$$

$$y = -5x + 6$$

6. Slope: undefined Point: $(-2,-10)$

$$x = -2$$

7. Slope: 0 Point: $(3,7)$

$$y - 7 = 0(x - 3)$$

$$y = 7$$

8. Slope: $\frac{1}{5}$ Point: $(5,4)$

$$y - 4 = \frac{1}{5}(x - 5)$$

$$y = \frac{1}{5}x + 3$$

9. Slope: $-\frac{13}{4}$ Point: $(-4,7)$

$$y - 7 = -\frac{13}{4}(x - (-4))$$

$$y = -\frac{13}{4}x - 6$$

10. Slope: $\frac{1}{3}$ Point: $(-6,6)$

$$y - 6 = \frac{1}{3}(x - (-6))$$

$$y = \frac{1}{3}x + 8$$